



SEQUENCE LISTING

<110> MCCARTHY, Sean A
FRASER, Christopher C
SHARP, John D
BARNES, Thomas S
KIRST, Susan J
MYERS, Paul S
WRIGHTON, Nicholas
GOODEARL, Andrew
HOLTZMAN, Douglas A
KHODADOUST, Mehran M

<120> NOVEL GENES ENCODING PROTEINS HAVING PROGNOSTIC,
DIAGNOSTIC, PREVENTIVE, THERAPEUTIC, AND OTHER USES

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<150> US 09/578,063
<151> 2000-05-24

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ttaaatctac aaaggaatcg cctcactgtc cttggggagtg gtacctttgt tggatggtt 540
gctcttcgga tacttgattt atcaaacaat aacatttga ggatatcaga atcaggctt 600
caacatcttgc aaaaccttgc ttgtttgtat ttaggaagta ataatttacaaa 660
tcaaattgcct ttgaagtact taaaagtctt agaagacttt ctttgcctca taatcctatt 720
gaagcaatac agcccttgc atttaaaggaa cttgccaatc tggaaatacct cctcctgaaa 780
aattcaagaa ttaggaatgt tacttagggat gggtttagtg gaattaataa tcttaaacat 840
ttgatcttgc gtcataatga tttagagaat ttaaattcttgc acacatttcg tttgttaaag 900
aatttaattt accttaagtt agatagaaac agaataatta gcattgataa tgatataattt 960
gaaaatatgg gagoatctt gaagatcctt aatctgtcat ttaataatct tacagccttgc 1020
catccaaggg tccttaagcc gttgtctca ttgattcatc ttcaaggcataa ttcttaatcct 1080
tggaaatgtt actgcaact ttgggcctt cgagactggc tagcatctt agccattactt 1140
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attacaaattt gtgttacatc ttcaataatgtatccagag cttggcgtgt tgtaaaatctt 1260

cctcatattc atcacaagac tactgcgcta atgatggcct ggcataaaagt aaccacaaat 1320
ggcagtcctc tggaaaatac tgagactgag aacattactt tctgggaacg aattcctact 1380
tcacctgctg gtagatttt tcaagagaat gccttggtt atccattaga gactacagca 1440
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gctctaccga atgatgctgc ttcaatgtca gggaaaacat ctctaattt tacacaagaa 1560
gttgagaagt tgaatgaggc ttttgacatt ttgctagctt ttttcatctt agcttgtgtt 1620
ttaatcattt ttttgatcta caaagttgtt cagttaaac aaaaactaaa ggcacatcagaa 1680
aactcaaggg aaaatagact tgaatactac agcttttac agtcagcaag gtataatgtt 1740
actgcctcaa tttgtAACAC ttccccaaat tctctagaaa gtcctggctt ggagcagatt 1800
cgacttcata aacaaattgt tcctgaaaat gaggcacagg tcattcttt tgaacattct 1860
gcttta 1866

<210> 23

<211> 622

<212> PRT

<213> Homo sapiens

<400> 23

Met Cys Gly Leu Gln Phe Ser Leu Pro Cys Leu Arg Leu Phe Leu Val
1 5 10 15

Val Thr Cys Tyr Leu Leu Leu Leu His Lys Glu Ile Leu Gly Cys
20 25 30

Ser Ser Val Cys Gln Leu Cys Thr Gly Arg Gln Ile Asn Cys Arg Asn
35 40 45

Leu Gly Leu Ser Ser Ile Pro Lys Asn Phe Pro Glu Ser Thr Val Phe
50 55 60

Leu Tyr Leu Thr Gly Asn Asn Ile Ser Tyr Ile Asn Glu Ser Glu Leu
65 70 75 80

Thr Gly Leu His Ser Leu Val Ala Leu Tyr Leu Asp Asn Ser Asn Ile
85 90 95

Leu Tyr Val Tyr Pro Lys Ala Phe Val Gln Leu Arg His Leu Tyr Phe
100 105 110

Leu Phe Leu Asn Asn Phe Ile Lys Arg Leu Asp Pro Gly Ile Phe
115 120 125

Lys Gly Leu Leu Asn Leu Arg Asn Leu Tyr Leu Gln Tyr Asn Gln Val
130 135 140

Ser Phe Val Pro Arg Gly Val Phe Asn Asp Leu Val Ser Val Gln Tyr
145 150 155 160

Leu Asn Leu Gln Arg Asn Arg Leu Thr Val Leu Gly Ser Gly Thr Phe
 165 170 175

 Val Gly Met Val Ala Leu Arg Ile Leu Asp Leu Ser Asn Asn Asn Ile
 180 185 190

 Leu Arg Ile Ser Glu Ser Gly Phe Gln His Leu Glu Asn Leu Ala Cys
 195 200 205

 Leu Tyr Leu Gly Ser Asn Asn Leu Thr Lys Val Pro Ser Asn Ala Phe
 210 215 220

 Glu Val Leu Lys Ser Leu Arg Arg Leu Ser Leu Ser His Asn Pro Ile
 225 230 240

 Glu Ala Ile Gln Pro Phe Ala Phe Lys Gly Leu Ala Asn Leu Glu Tyr
 245 250 255

 Leu Leu Leu Lys Asn Ser Arg Ile Arg Asn Val Thr Arg Asp Gly Phe
 260 265 270

 Ser Gly Ile Asn Asn Leu Lys His Leu Ile Leu Ser His Asn Asp Leu
 275 280 285

 Glu Asn Leu Asn Ser Asp Thr Phe Ser Leu Leu Lys Asn Leu Ile Tyr
 290 295 300

 Leu Lys Leu Asp Arg Asn Arg Ile Ile Ser Ile Asp Asn Asp Thr Phe
 305 310 315 320

 Glu Asn Met Gly Ala Ser Leu Lys Ile Leu Asn Leu Ser Phe Asn Asn
 325 330 335

 Leu Thr Ala Leu His Pro Arg Val Leu Lys Pro Leu Ser Ser Leu Ile
 340 345 350

 His Leu Gln Ala Asn Ser Asn Pro Trp Glu Cys Asn Cys Lys Leu Leu
 355 360 365

 Gly Leu Arg Asp Trp Leu Ala Ser Ser Ala Ile Thr Leu Asn Ile Tyr
 370 375 380

 Cys Gln Asn Pro Pro Ser Met Arg Gly Arg Ala Leu Arg Tyr Ile Asn
 385 390 395 400

 Ile Thr Asn Cys Val Thr Ser Ser Ile Asn Val Ser Arg Ala Trp Ala
 405 410 415

Val Val Lys Ser Pro His Ile His His Lys Thr Thr Ala Leu Met Met
 420 425 430

 Ala Trp His Lys Val Thr Thr Asn Gly Ser Pro Leu Glu Asn Thr Glu
 435 440 445

 Thr Glu Asn Ile Thr Phe Trp Glu Arg Ile Pro Thr Ser Pro Ala Gly
 450 455 460

 Arg Phe Phe Gln Glu Asn Ala Phe Gly Asn Pro Leu Glu Thr Thr Ala
 465 470 475 480

 Val Leu Pro Val Gln Ile Gln Leu Thr Thr Ser Val Thr Leu Asn Leu
 485 490 495

 Glu Lys Asn Ser Ala Leu Pro Asn Asp Ala Ala Ser Met Ser Gly Lys
 500 505 510

 Thr Ser Leu Ile Cys Thr Gln Glu Val Glu Lys Leu Asn Glu Ala Phe
 515 520 525

 Asp Ile Leu Leu Ala Phe Phe Ile Leu Ala Cys Val Leu Ile Ile Phe
 530 535 540

 Leu Ile Tyr Lys Val Val Gln Phe Lys Gln Lys Leu Lys Ala Ser Glu
 545 550 555 560

 Asn Ser Arg Glu Asn Arg Leu Glu Tyr Tyr Ser Phe Tyr Gln Ser Ala
 565 570 575

 Arg Tyr Asn Val Thr Ala Ser Ile Cys Asn Thr Ser Pro Asn Ser Leu
 580 585 590

 Glu Ser Pro Gly Leu Glu Gln Ile Arg Leu His Lys Gln Ile Val Pro
 595 600 605

 Glu Asn Glu Ala Gln Val Ile Leu Phe Glu His Ser Ala Leu
 610 615 620

<210> 24
 <211> 31
 <212> PRT
 <213> Homo sapiens

<400> 24
 Met Cys Gly Leu Gln Phe Ser Leu Pro Cys Leu Arg Leu Phe Leu Val

1	5	10	15
Val Thr Cys Tyr Leu Leu Leu Leu His Lys Glu Ile Leu Gly			
20	25	30	
<210> 25			
<211> 591			
<212> PRT			
<213> Homo sapiens			
<400> 25			
Cys Ser Ser Val Cys Gln Leu Cys Thr Gly Arg Gln Ile Asn Cys Arg			
1	5	10	15
Asn Leu Gly Leu Ser Ser Ile Pro Lys Asn Phe Pro Glu Ser Thr Val			
20	25	30	
Phe Leu Tyr Leu Thr Gly Asn Asn Ile Ser Tyr Ile Asn Glu Ser Glu			
35	40	45	
Leu Thr Gly Leu His Ser Leu Val Ala Leu Tyr Leu Asp Asn Ser Asn			
50	55	60	
Ile Leu Tyr Val Tyr Pro Lys Ala Phe Val Gln Leu Arg His Leu Tyr			
65	70	75	80
Phe Leu Phe Leu Asn Asn Phe Ile Lys Arg Leu Asp Pro Gly Ile			
85	90	95	
Phe Lys Gly Leu Leu Asn Leu Arg Asn Leu Tyr Leu Gln Tyr Asn Gln			
100	105	110	
Val Ser Phe Val Pro Arg Gly Val Phe Asn Asp Leu Val Ser Val Gln			
115	120	125	
Tyr Leu Asn Leu Gln Arg Asn Arg Leu Thr Val Leu Gly Ser Gly Thr			
130	135	140	
Phe Val Gly Met Val Ala Leu Arg Ile Leu Asp Leu Ser Asn Asn Asn			
145	150	155	160
Ile Leu Arg Ile Ser Glu Ser Gly Phe Gln His Leu Glu Asn Leu Ala			
165	170	175	
Cys Leu Tyr Leu Gly Ser Asn Asn Leu Thr Lys Val Pro Ser Asn Ala			
180	185	190	

Phe	Glu	Val	Leu	Lys	Ser	Leu	Arg	Arg	Leu	Ser	Leu	Ser	His	Asn	Pro
195						200							205		
Ile	Glu	Ala	Ile	Gln	Pro	Phe	Ala	Phe	Lys	Gly	Leu	Ala	Asn	Leu	Glu
210						215							220		
Tyr	Leu	Leu	Leu	Lys	Asn	Ser	Arg	Ile	Arg	Asn	Val	Thr	Arg	Asp	Gly
225						230					235			240	
Phe	Ser	Gly	Ile	Asn	Asn	Leu	Lys	His	Leu	Ile	Leu	Ser	His	Asn	Asp
245						250							255		
Leu	Glu	Asn	Leu	Asn	Ser	Asp	Thr	Phe	Ser	Leu	Leu	Lys	Asn	Leu	Ile
260						265							270		
Tyr	Leu	Lys	Leu	Asp	Arg	Asn	Arg	Ile	Ile	Ser	Ile	Asp	Asn	Asp	Thr
275						280							285		
Phe	Glu	Asn	Met	Gly	Ala	Ser	Leu	Lys	Ile	Leu	Asn	Leu	Ser	Phe	Asn
290						295							300		
Asn	Leu	Thr	Ala	Leu	His	Pro	Arg	Val	Leu	Lys	Pro	Leu	Ser	Ser	Leu
305						310					315			320	
Ile	His	Leu	Gln	Ala	Asn	Ser	Asn	Pro	Trp	Glu	Cys	Asn	Cys	Lys	Leu
														335	
325									330						
Leu	Gly	Leu	Arg	Asp	Trp	Leu	Ala	Ser	Ser	Ala	Ile	Thr	Leu	Asn	Ile
														350	
Tyr	Cys	Gln	Asn	Pro	Pro	Ser	Met	Arg	Gly	Arg	Ala	Leu	Arg	Tyr	Ile
														365	
355						360									
Asn	Ile	Thr	Asn	Cys	Val	Thr	Ser	Ser	Ile	Asn	Val	Ser	Arg	Ala	Trp
														380	
370						375									
Ala	Val	Val	Lys	Ser	Pro	His	Ile	His	His	Lys	Thr	Thr	Ala	Leu	Met
														400	
385						390					395				
Met	Ala	Trp	His	Lys	Val	Thr	Thr	Asn	Gly	Ser	Pro	Leu	Glu	Asn	Thr
														415	
405									410						
Glu	Thr	Glu	Asn	Ile	Thr	Phe	Trp	Glu	Arg	Ile	Pro	Thr	Ser	Pro	Ala
														430	
420									425						
Gly	Arg	Phe	Phe	Gln	Glu	Asn	Ala	Phe	Gly	Asn	Pro	Leu	Glu	Thr	Thr
														445	
435									440						

Ala Val Leu Pro Val Gln Ile Gln Leu Thr Thr Ser Val Thr Leu Asn
 450 455 460

 Leu Glu Lys Asn Ser Ala Leu Pro Asn Asp Ala Ala Ser Met Ser Gly
 465 470 475 480

 Lys Thr Ser Leu Ile Cys Thr Gln Glu Val Glu Lys Leu Asn Glu Ala
 485 490 495

 Phe Asp Ile Leu Leu Ala Phe Phe Ile Leu Ala Cys Val Leu Ile Ile
 500 505 510

 Phe Leu Ile Tyr Lys Val Val Gln Phe Lys Gln Lys Leu Lys Ala Ser
 515 520 525

 Glu Asn Ser Arg Glu Asn Arg Leu Glu Tyr Tyr Ser Phe Tyr Gln Ser
 530 535 540

 Ala Arg Tyr Asn Val Thr Ala Ser Ile Cys Asn Thr Ser Pro Asn Ser
 545 550 555 560

 Leu Glu Ser Pro Gly Leu Glu Gln Ile Arg Leu His Lys Gln Ile Val
 565 570 575

 Pro Glu Asn Glu Ala Gln Val Ile Leu Phe Glu His Ser Ala Leu
 580 585 590

 <210> 26
 <211> 498
 <212> PRT
 <213> Homo sapiens

 <400> 26
 Cys Ser Ser Val Cys Gln Leu Cys Thr Gly Arg Gln Ile Asn Cys Arg
 1 5 10 15

 Asn Leu Gly Leu Ser Ser Ile Pro Lys Asn Phe Pro Glu Ser Thr Val
 20 25 30

 Phe Leu Tyr Leu Thr Gly Asn Asn Ile Ser Tyr Ile Asn Glu Ser Glu
 35 40 45

 Leu Thr Gly Leu His Ser Leu Val Ala Leu Tyr Leu Asp Asn Ser Asn
 50 55 60

 Ile Leu Tyr Val Tyr Pro Lys Ala Phe Val Gln Leu Arg His Leu Tyr
 65 70 75 80

Phe	Leu	Phe	Leu	Asn	Asn	Asn	Phe	Ile	Lys	Arg	Leu	Asp	Pro	Gly	Ile
							85		90						95
Phe	Lys	Gly	Leu	Leu	Asn	Leu	Arg	Asn	Leu	Tyr	Leu	Gln	Tyr	Asn	Gln
							100		105						110
Val	Ser	Phe	Val	Pro	Arg	Gly	Val	Phe	Asn	Asp	Leu	Val	Ser	Val	Gln
							115		120						125
Tyr	Leu	Asn	Leu	Gln	Arg	Asn	Arg	Leu	Thr	Val	Leu	Gly	Ser	Gly	Thr
							130		135						140
Phe	Val	Gly	Met	Val	Ala	Leu	Arg	Ile	Leu	Asp	Leu	Ser	Asn	Asn	Asn
							145		150						160
Ile	Leu	Arg	Ile	Ser	Glu	Ser	Gly	Phe	Gln	His	Leu	Glu	Asn	Leu	Ala
							165		170						175
Cys	Leu	Tyr	Leu	Gly	Ser	Asn	Asn	Leu	Thr	Lys	Val	Pro	Ser	Asn	Ala
							180		185						190
Phe	Glu	Val	Leu	Lys	Ser	Leu	Arg	Arg	Leu	Ser	Leu	Ser	His	Asn	Pro
							195		200						205
Ile	Glu	Ala	Ile	Gln	Pro	Phe	Ala	Phe	Lys	Gly	Leu	Ala	Asn	Leu	Glu
							210		215						220
Tyr	Leu	Leu	Leu	Lys	Asn	Ser	Arg	Ile	Arg	Asn	Val	Thr	Arg	Asp	Gly
							225		230						240
Phe	Ser	Gly	Ile	Asn	Asn	Leu	Lys	His	Leu	Ile	Leu	Ser	His	Asn	Asp
							245		250						255
Leu	Glu	Asn	Leu	Asn	Ser	Asp	Thr	Phe	Ser	Leu	Leu	Lys	Asn	Leu	Ile
							260		265						270
Tyr	Leu	Lys	Leu	Asp	Arg	Asn	Arg	Ile	Ile	Ser	Ile	Asp	Asn	Asp	Thr
							275		280						285
Phe	Glu	Asn	Met	Gly	Ala	Ser	Leu	Lys	Ile	Leu	Asn	Leu	Ser	Phe	Asn
							290		295						300
Asn	Leu	Thr	Ala	Leu	His	Pro	Arg	Val	Leu	Lys	Pro	Leu	Ser	Ser	Leu
							305		310						320
Ile	His	Leu	Gln	Ala	Asn	Ser	Asn	Pro	Trp	Glu	Cys	Asn	Cys	Lys	Leu
							325		330						335

Leu Gly Leu Arg Asp Trp Leu Ala Ser Ser Ala Ile Thr Leu Asn Ile
340 345 350

Tyr Cys Gln Asn Pro Pro Ser Met Arg Gly Arg Ala Leu Arg Tyr Ile
355 360 365

Asn Ile Thr Asn Cys Val Thr Ser Ser Ile Asn Val Ser Arg Ala Trp
370 375 380

Ala Val Val Lys Ser Pro His Ile His His Lys Thr Thr Ala Leu Met
385 390 395 400

Met Ala Trp His Lys Val Thr Thr Asn Gly Ser Pro Leu Glu Asn Thr
405 410 415

Glu Thr Glu Asn Ile Thr Phe Trp Glu Arg Ile Pro Thr Ser Pro Ala
420 425 430

Gly Arg Phe Phe Gln Glu Asn Ala Phe Gly Asn Pro Leu Glu Thr Thr
435 440 445

Ala Val Leu Pro Val Gln Ile Gln Leu Thr Thr Ser Val Thr Leu Asn
450 455 460

Leu Glu Lys Asn Ser Ala Leu Pro Asn Asp Ala Ala Ser Met Ser Gly
465 470 475 480

Lys Thr Ser Leu Ile Cys Thr Gln Glu Val Glu Lys Leu Asn Glu Ala
485 490 495

Phe Asp

<210> 27

<211> 18

<212> PRT

<213> Homo sapiens

<400> 27

Ile Leu Leu Ala Phe Phe Ile Leu Ala Cys Val Leu Ile Ile Phe Leu
1 5 10 15

Ile Tyr

<210> 28
<211> 75
<212> PRT
<213> Homo sapiens

<400> 28

Lys	Val	Val	Gln	Phe	Lys	Gln	Lys	Leu	Lys	Ala	Ser	Glu	Asn	Ser	Arg
1															15
Glu	Asn	Arg	Leu	Glu	Tyr	Tyr	Ser	Phe	Tyr	Gln	Ser	Ala	Arg	Tyr	Asn
			20												30
Val	Thr	Ala	Ser	Ile	Cys	Asn	Thr	Ser	Pro	Asn	Ser	Leu	Glu	Ser	Pro
															45
Gly	Leu	Glu	Gln	Ile	Arg	Leu	His	Lys	Gln	Ile	Val	Pro	Glu	Asn	Glu
			50												60
Ala	Gln	Val	Ile	Leu	Phe	Glu	His	Ser	Ala	Leu					
			65												75

<210> 29
<211> 1529
<212> PRT
<213> Homo sapiens

<400> 29

Met	Arg	Gly	Val	Gly	Trp	Gln	Met	Leu	Ser	Leu	Ser	Leu	Gly	Leu	Val
1															15
Leu	Ala	Ile	Leu	Asn	Lys	Val	Ala	Pro	Gln	Ala	Cys	Pro	Ala	Gln	Cys
															30
Ser	Cys	Ser	Gly	Ser	Thr	Val	Asp	Cys	His	Gly	Leu	Ala	Leu	Arg	Ser
															45
Val	Pro	Arg	Asn	Ile	Pro	Arg	Asn	Thr	Glu	Arg	Leu	Asp	Leu	Asn	Gly
															60
Asn	Asn	Ile	Thr	Arg	Ile	Thr	Lys	Thr	Asp	Phe	Ala	Gly	Leu	Arg	His
															80
Leu	Arg	Val	Leu	Gln	Leu	Met	Glu	Asn	Lys	Ile	Ser	Thr	Ile	Glu	Arg
															95
Gly	Ala	Phe	Gln	Asp	Leu	Lys	Glu	Leu	Glu	Arg	Leu	Arg	Leu	Asn	Arg
															110
100															105

Asn	His	Leu	Gln	Leu	Phe	Pro	Glu	Leu	Leu	Phe	Leu	Gly	Thr	Ala	Lys
115							120						125		
Leu	Tyr	Arg	Leu	Asp	Leu	Ser	Glu	Asn	Gln	Ile	Gln	Ala	Ile	Pro	Arg
130						135							140		
Lys	Ala	Phe	Arg	Gly	Ala	Val	Asp	Ile	Lys	Asn	Leu	Gln	Leu	Asp	Tyr
145						150			155				160		
Asn	Gln	Ile	Ser	Cys	Ile	Glu	Asp	Gly	Ala	Phe	Arg	Ala	Leu	Arg	Asp
165							170						175		
Leu	Glu	Val	Leu	Thr	Leu	Asn	Asn	Asn	Ile	Thr	Arg	Leu	Ser	Val	
180						185							190		
Ala	Ser	Phe	Asn	His	Met	Pro	Lys	Leu	Arg	Thr	Phe	Arg	Leu	His	Ser
195						200						205			
Asn	Asn	Leu	Tyr	Cys	Asp	Cys	His	Leu	Ala	Trp	Leu	Ser	Asp	Trp	Leu
210						215						220			
Arg	Gln	Arg	Pro	Arg	Val	Gly	Leu	Tyr	Thr	Gln	Cys	Met	Gly	Pro	Ser
225						230			235				240		
His	Leu	Arg	Gly	His	Asn	Val	Ala	Glu	Val	Gln	Lys	Arg	Glu	Phe	Val
245							250						255		
Cys	Ser	Gly	His	Gln	Ser	Phe	Met	Ala	Pro	Ser	Cys	Ser	Val	Leu	His
260						265						270			
Cys	Pro	Ala	Ala	Cys	Thr	Cys	Ser	Asn	Asn	Ile	Val	Asp	Cys	Arg	Gly
275						280						285			
Lys	Gly	Leu	Thr	Glu	Ile	Pro	Thr	Asn	Leu	Pro	Glu	Thr	Ile	Thr	Glu
290						295						300			
Ile	Arg	Leu	Glu	Gln	Asn	Thr	Ile	Lys	Val	Ile	Pro	Pro	Gly	Ala	Phe
305						310			315			320			
Ser	Pro	Tyr	Lys	Lys	Leu	Arg	Arg	Ile	Asp	Leu	Ser	Asn	Asn	Gln	Ile
325							330						335		
Ser	Glu	Leu	Ala	Pro	Asp	Ala	Phe	Gln	Gly	Leu	Arg	Ser	Leu	Asn	Ser
340							345						350		
Leu	Val	Leu	Tyr	Gly	Asn	Lys	Ile	Thr	Glu	Leu	Pro	Lys	Ser	Leu	Phe
355						360							365		

Glu	Gly	Leu	Phe	Ser	Leu	Gln	Leu	Leu	Leu	Asn	Ala	Asn	Lys	Ile	
370														380	
Asn	Cys	Leu	Arg	Val	Asp	Ala	Phe	Gln	Asp	Leu	His	Asn	Leu	Asn	Leu
385														395	400
Leu	Ser	Leu	Tyr	Asp	Asn	Lys	Leu	Gln	Thr	Ile	Ala	Lys	Gly	Thr	Phe
									405				410		415
Ser	Pro	Leu	Arg	Ala	Ile	Gln	Thr	Met	His	Leu	Ala	Gln	Asn	Pro	Phe
									420				425		430
Ile	Cys	Asp	Cys	His	Leu	Lys	Trp	Leu	Ala	Asp	Tyr	Leu	His	Thr	Asn
									435				440		445
Pro	Ile	Glu	Thr	Ser	Gly	Ala	Arg	Cys	Thr	Ser	Pro	Arg	Arg	Leu	Ala
									450				455		460
Asn	Lys	Arg	Ile	Gly	Gln	Ile	Lys	Ser	Lys	Lys	Phe	Arg	Cys	Ser	Ala
									465				470		475
Lys	Glu	Gln	Tyr	Phe	Ile	Pro	Gly	Thr	Glu	Asp	Tyr	Arg	Ser	Lys	Leu
									485				490		495
Ser	Gly	Asp	Cys	Phe	Ala	Asp	Leu	Ala	Cys	Pro	Glu	Lys	Cys	Arg	Cys
									500				505		510
Glu	Gly	Thr	Thr	Val	Asp	Cys	Ser	Asn	Gln	Lys	Leu	Asn	Lys	Ile	Pro
									515				520		525
Glu	His	Ile	Pro	Gln	Tyr	Thr	Ala	Glu	Leu	Arg	Leu	Asn	Asn	Glu	
									530				535		540
Phe	Thr	Val	Leu	Glu	Ala	Thr	Gly	Ile	Phe	Lys	Lys	Leu	Pro	Gln	Leu
									545				550		555
Arg	Lys	Ile	Asn	Phe	Ser	Asn	Asn	Lys	Ile	Thr	Asp	Ile	Glu	Gly	
									565				570		575
Ala	Phe	Glu	Gly	Ala	Ser	Gly	Val	Asn	Glu	Ile	Leu	Leu	Thr	Ser	Asn
									580				585		590
Arg	Leu	Glu	Asn	Val	Gln	His	Lys	Met	Phe	Lys	Gly	Leu	Glu	Ser	Leu
									595				600		605
Lys	Thr	Leu	Met	Leu	Arg	Ser	Asn	Arg	Ile	Thr	Cys	Val	Gly	Asn	Asp
									610				615		620

Ser Phe Ile Gly Leu Ser Ser Val Arg Leu Leu Ser Leu Tyr Asp Asn
 625 630 635 640

 Gln Ile Thr Thr Val Ala Pro Gly Ala Phe Asp Thr Leu His Ser Leu
 645 650 655

 Ser Thr Leu Asn Leu Leu Ala Asn Pro Phe Asn Cys Asn Cys Tyr Leu
 660 665 670

 Ala Trp Leu Gly Glu Trp Leu Arg Lys Lys Arg Ile Val Thr Gly Asn
 675 680 685

 Pro Arg Cys Gln Lys Pro Tyr Phe Leu Lys Glu Ile Pro Ile Gln Asp
 690 695 700

 Val Ala Ile Gln Asp Phe Thr Cys Asp Asp Gly Asn Asp Asp Asn Ser
 705 710 715 720

 Cys Ser Pro Leu Ser Arg Cys Pro Thr Glu Cys Thr Cys Leu Asp Thr
 725 730 735

 Val Val Arg Cys Ser Asn Lys Gly Leu Lys Val Leu Pro Lys Gly Ile
 740 745 750

 Pro Arg Asp Val Thr Glu Leu Tyr Leu Asp Gly Asn Gln Phe Thr Leu
 755 760 765

 Val Pro Lys Glu Leu Ser Asn Tyr Lys His Leu Thr Leu Ile Asp Leu
 770 775 780

 Ser Asn Asn Arg Ile Ser Thr Leu Ser Asn Gln Ser Phe Ser Asn Met
 785 790 795 800

 Thr Gln Leu Leu Thr Leu Ile Leu Ser Tyr Asn Arg Leu Arg Cys Ile
 805 810 815

 Pro Pro Arg Thr Phe Asp Gly Leu Lys Ser Leu Arg Leu Leu Ser Leu
 820 825 830

 His Gly Asn Asp Ile Ser Val Val Pro Glu Gly Ala Phe Asn Asp Leu
 835 840 845

 Ser Ala Leu Ser His Leu Ala Ile Gly Ala Asn Pro Leu Tyr Cys Asp
 850 855 860

 Cys Asn Met Gln Trp Leu Ser Asp Trp Val Lys Ser Glu Tyr Lys Glu
 865 870 875 880

Pro Gly Ile Ala Arg Cys Ala Gly Pro Gly Glu Met Ala Asp Lys Leu
 885 890 895

 Leu Leu Thr Thr Pro Ser Lys Lys Phe Thr Cys Gln Gly Pro Val Asp
 900 905 910

 Val Asn Ile Leu Ala Lys Cys Asn Pro Cys Leu Ser Asn Pro Cys Lys
 915 920 925

 Asn Asp Gly Thr Cys Asn Ser Asp Pro Val Asp Phe Tyr Arg Cys Thr
 930 935 940

 Cys Pro Tyr Gly Phe Lys Gly Gln Asp Cys Asp Val Pro Ile His Ala
 945 950 960

 Cys Ile Ser Asn Pro Cys Lys His Gly Gly Thr Cys His Leu Lys Glu
 965 970 975

 Gly Glu Glu Asp Gly Phe Trp Cys Ile Cys Ala Asp Gly Phe Glu Gly
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Val	Leu	Met	Ser	Arg	Tyr	His	Arg	Arg	Lys	Ala	Gln	Gln	Met	Thr	Gln
370															380
Lys	Tyr	Glu	Glu	Glu	Leu	Thr	Leu	Thr	Arg	Glu	Asn	Ser	Ile	Arg	Arg
385															400
Leu	His	Ser	His	His	Thr	Asp	Pro	Arg	Ser	Gln	Pro	Glu	Glu	Ser	Val
405															415
Gly	Leu	Arg	Ala	Glu	Gly	His	Pro	Asp	Ser	Leu	Lys	Asp	Asn	Ser	Ser
420															430
Cys	Ser	Val	Met	Ser	Glu	Glu	Pro	Glu	Gly	Arg	Ser	Tyr	Ser	Thr	Leu
435															445
Thr	Thr	Val	Arg	Glu	Ile	Glu	Thr	Gln	Thr	Glu	Leu	Leu	Ser	Pro	Gly
450															460
Ser	Gly	Arg	Ala	Glu	Glu	Glu	Asp	Gln	Asp	Glu	Gly	Ile	Lys	Gln	
465															480
Ala	Met	Asn	His	Phe	Val	Gln	Glu	Asn	Gly	Thr	Leu	Arg	Ala	Lys	Pro
485															495
Thr	Gly	Asn	Gly	Ile	Tyr	Ile	Asn	Gly	Arg	Gly	His	Leu	Val		
500															510
<210> 34															
<211> 31															
<212> PRT															
<213> Homo sapiens															
<400> 34															
Met	Pro	Leu	Ser	Leu	Gly	Ala	Glu	Met	Trp	Gly	Pro	Glu	Ala	Trp	Leu
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Leu	Leu	Leu	Leu	Leu	Ala	Ser	Phe	Thr	Gly	Arg	Cys	Pro	Ala		
20															30

<210> 35
<211> 479
<212> PRT
<213> Homo sapiens

<400> 35
Gly Glu Leu Glu Thr Ser Asp Val Val Thr Val Val Leu Gly Gln Asp
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Ala Lys Leu Pro Cys Phe Tyr Arg Gly Asp Ser Gly Glu Gln Val Gly
20 25 30

Gln Val Ala Trp Ala Arg Val Asp Ala Gly Glu Gly Ala Gln Glu Leu
35 40 45

Ala Leu Leu His Ser Lys Tyr Gly Leu His Val Ser Pro Ala Tyr Glu
50 55 60

Gly Arg Val Glu Gln Pro Pro Pro Arg Asn Pro Leu Asp Gly Ser
65 70 75 80

Val Leu Leu Arg Asn Ala Val Gln Ala Asp Glu Gly Glu Tyr Glu Cys
85 90 95

Arg Val Ser Thr Phe Pro Ala Gly Ser Phe Gln Ala Arg Leu Arg Leu
100 105 110

Arg Val Leu Val Pro Pro Leu Pro Ser Leu Asn Pro Gly Pro Ala Leu
115 120 125

Glu Glu Gly Gln Gly Leu Thr Leu Ala Ala Ser Cys Thr Ala Glu Gly
130 135 140

Ser Pro Ala Pro Ser Val Thr Trp Asp Thr Glu Val Lys Gly Thr Thr
145 150 155 160

Ser Ser Arg Ser Phe Lys His Ser Arg Ser Ala Ala Val Thr Ser Glu
165 170 175

Phe His Leu Val Pro Ser Arg Ser Met Asn Gly Gln Pro Leu Thr Cys
180 185 190

Val Val Ser His Pro Gly Leu Leu Gln Asp Gln Arg Ile Thr His Ile
195 200 205

Leu His Val Ser Phe Leu Ala Glu Ala Ser Val Arg Gly Leu Glu Asp
210 215 220

Gln Asn Leu Trp His Ile Gly Arg Glu Gly Ala Met Leu Lys Cys Leu
 225 230 235 240
 Ser Glu Gly Gln Pro Pro Pro Ser Tyr Asn Trp Thr Arg Leu Asp Gly
 245 250 255
 Pro Leu Pro Ser Gly Val Arg Val Asp Gly Asp Thr Leu Gly Phe Pro
 260 265 270
 Pro Leu Thr Thr Glu His Ser Gly Ile Tyr Val Cys His Val Ser Asn
 275 280 285
 Glu Phe Ser Ser Arg Asp Ser Gln Val Thr Val Asp Val Leu Asp Pro
 290 295 300
 Gln Glu Asp Ser Gly Lys Gln Val Asp Leu Val Ser Ala Ser Val Val
 305 310 315 320
 Val Val Gly Val Ile Ala Ala Leu Leu Phe Cys Leu Leu Val Val Val
 325 330 335
 Val Val Leu Met Ser Arg Tyr His Arg Arg Lys Ala Gln Gln Met Thr
 340 345 350
 Gln Lys Tyr Glu Glu Glu Leu Thr Leu Thr Arg Glu Asn Ser Ile Arg
 355 360 365
 Arg Leu His Ser His His Thr Asp Pro Arg Ser Gln Pro Glu Glu Ser
 370 375 380
 Val Gly Leu Arg Ala Glu Gly His Pro Asp Ser Leu Lys Asp Asn Ser
 385 390 395 400
 Ser Cys Ser Val Met Ser Glu Glu Pro Glu Gly Arg Ser Tyr Ser Thr
 405 410 415
 Leu Thr Thr Val Arg Glu Ile Glu Thr Gln Thr Glu Leu Leu Ser Pro
 420 425 430
 Gly Ser Gly Arg Ala Glu Glu Glu Asp Gln Asp Glu Gly Ile Lys
 435 440 445
 Gln Ala Met Asn His Phe Val Gln Glu Asn Gly Thr Leu Arg Ala Lys
 450 455 460
 Pro Thr Gly Asn Gly Ile Tyr Ile Asn Gly Arg Gly His Leu Val
 465 470 475

<210> 36
<211> 314
<212> PRT
<213> Homo sapiens

<400> 36
Gly Glu Leu Glu Thr Ser Asp Val Val Thr Val Val Leu Gly Gln Asp
1 5 10 15

Ala Lys Leu Pro Cys Phe Tyr Arg Gly Asp Ser Gly Glu Gln Val Gly
20 25 30

Gln Val Ala Trp Ala Arg Val Asp Ala Gly Glu Gly Ala Gln Glu Leu
35 40 45

Ala Leu Leu His Ser Lys Tyr Gly Leu His Val Ser Pro Ala Tyr Glu
50 55 60

Gly Arg Val Glu Gln Pro Pro Pro Arg Asn Pro Leu Asp Gly Ser
65 70 75 80

Val Leu Leu Arg Asn Ala Val Gln Ala Asp Glu Gly Glu Tyr Glu Cys
85 90 95

Arg Val Ser Thr Phe Pro Ala Gly Ser Phe Gln Ala Arg Leu Arg Leu
100 105 110

Arg Val Leu Val Pro Pro Leu Pro Ser Leu Asn Pro Gly Pro Ala Leu
115 120 125

Glu Glu Gly Gln Gly Leu Thr Leu Ala Ala Ser Cys Thr Ala Glu Gly
130 135 140

Ser Pro Ala Pro Ser Val Thr Trp Asp Thr Glu Val Lys Gly Thr Thr
145 150 155 160

Ser Ser Arg Ser Phe Lys His Ser Arg Ser Ala Ala Val Thr Ser Glu
165 170 175

Phe His Leu Val Pro Ser Arg Ser Met Asn Gly Gln Pro Leu Thr Cys
180 185 190

Val Val Ser His Pro Gly Leu Leu Gln Asp Gln Arg Ile Thr His Ile
195 200 205

Leu His Val Ser Phe Leu Ala Glu Ala Ser Val Arg Gly Leu Glu Asp
210 215 220

Gln Asn Leu Trp His Ile Gly Arg Glu Gly Ala Met Leu Lys Cys Leu
225 230 235 240

Ser Glu Gly Gln Pro Pro Pro Ser Tyr Asn Trp Thr Arg Leu Asp Gly
245 250 255

Pro Leu Pro Ser Gly Val Arg Val Asp Gly Asp Thr Leu Gly Phe Pro
260 265 270

Pro Leu Thr Thr Glu His Ser Gly Ile Tyr Val Cys His Val Ser Asn
275 280 285

Glu Phe Ser Ser Arg Asp Ser Gln Val Thr Val Asp Val Leu Asp Pro
290 295 300

Gln Glu Asp Ser Gly Lys Gln Val Asp Leu
305 310

<210> 37

<211> 25

<212> PRT

<213> Homo sapiens

<400> 37

Val Ser Ala Ser Val Val Val Val Gly Val Ile Ala Ala Leu Leu Phe
1 5 10 15

Cys Leu Leu Val Val Val Val Val Leu
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<210> 38

<211> 140

<212> PRT

<213> Homo sapiens

<400> 38

Met Ser Arg Tyr His Arg Arg Lys Ala Gln Gln Met Thr Gln Lys Tyr
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Glu Glu Glu Leu Thr Leu Thr Arg Glu Asn Ser Ile Arg Arg Leu His
20 25 30

Ser His His Thr Asp Pro Arg Ser Gln Pro Glu Glu Ser Val Gly Leu
35 40 45

Arg Ala Glu Gly His Pro Asp Ser Leu Lys Asp Asn Ser Ser Cys Ser
50 55 60

Val Met Ser Glu Glu Pro Glu Gly Arg Ser Tyr Ser Thr Leu Thr Thr
65 70 75 80

Val Arg Glu Ile Glu Thr Gln Thr Glu Leu Leu Ser Pro Gly Ser Gly
85 90 95

Arg Ala Glu Glu Glu Asp Gln Asp Glu Gly Ile Lys Gln Ala Met
100 105 110

Asn His Phe Val Gln Glu Asn Gly Thr Leu Arg Ala Lys Pro Thr Gly
115 120 125

Asn Gly Ile Tyr Ile Asn Gly Arg Gly His Leu Val
130 135 140

<210> 39

<400> 39

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<210> 40

<400> 40

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<210> 41

<211> 2510

<212> DNA

<213> Homo sapiens

<400> 41

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<210> 42
 <211> 897
 <212> DNA
 <213> Homo sapiens

<400> 42

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gaagatcagg atgaaggcat caaacaggcc atgaaccatt ttgttcagga gaatgggacc 840
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<210> 43

<211> 299

<212> PRT

<213> Homo sapiens

<400> 43

Lys Gly Thr Thr Ser Ser Arg Ser Phe Lys His Ser Arg Ser Ala Ala
1 5 10 15

Val Thr Ser Glu Phe His Leu Val Pro Ser Arg Ser Met Asn Gly Gln
20 25 30

Pro Leu Thr Cys Val Val Ser His Pro Gly Leu Leu Gln Asp Gln Arg
35 40 45

Ile Thr His Ile Leu His Val Ser Phe Leu Ala Glu Ala Ser Val Arg
50 55 60

Gly Leu Glu Asp Gln Asn Leu Trp His Ile Gly Arg Glu Gly Ala Met
65 70 75 80

Leu Lys Cys Leu Ser Glu Gly Gln Pro Pro Pro Ser Tyr Asn Trp Thr
85 90 95

Arg Leu Asp Gly Pro Leu Pro Ser Gly Val Arg Val Asp Gly Asp Thr
100 105 110

Leu Gly Phe Pro Pro Leu Thr Thr Glu His Ser Gly Ile Tyr Val Cys
115 120 125

His Val Ser Asn Glu Phe Ser Ser Arg Asp Ser Gln Val Thr Val Asp
130 135 140

Val Leu Ala Asp Pro Gln Glu Asp Ser Gly Lys Gln Val Asp Leu Val
145 150 155 160

Ser Ala Ser Val Val Val Gly Val Ile Ala Ala Leu Leu Phe Cys
165 170 175

Leu Leu Val Val Val Val Leu Met Ser Arg Tyr His Arg Arg Lys
180 185 190

Ala Gln Gln Met Thr Gln Lys Tyr Glu Glu Glu Leu Thr Leu Thr Arg
195 200 205

Glu Asn Ser Ile Arg Arg Leu His Ser His His Thr Asp Pro Arg Ser
210 215 220

Gln Ser Glu Glu Pro Glu Gly Arg Ser Tyr Ser Thr Leu Thr Thr Val
225 230 235 240

Arg Glu Ile Glu Thr Gln Thr Glu Leu Leu Ser Pro Gly Ser Gly Arg
245 250 255

Ala Glu Glu Glu Glu Asp Gln Asp Glu Gly Ile Lys Gln Ala Met Asn
260 265 270

His Phe Val Gln Glu Asn Gly Thr Leu Arg Ala Lys Pro Thr Gly Asn
275 280 285

Gly Ile Tyr Ile Asn Gly Arg Gly His Leu Val
290 295

<210> 44

<400> 44

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<210> 49

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<210> 50

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<210> 51

<211> 3114

<212> DNA

<213> Homo sapiens

<400> 51

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caatggattt ataagacacc ttatgagaaaa aatgtcagat tttggcacctt aggtgagccc 660
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<210> 52
<211> 627
<212> DNA
<213> Homo sapiens

<400> 52
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gttaacttacc attttacata tggtaaact ggcaaaaggc tgcgtgaact acactcatat 180
cattcaagtc tcacctgtt cagtgaaggg acaaagggtgc cagcctgggg atgttgcacca 240
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atatgtgaga tgaataagat ttaccta 627

<210> 53
<211> 209
<212> PRT
<213> Homo sapiens

<400> 53
Met Met Gln Glu Gln Gln Pro Gln Ser Thr Glu Lys Arg Gly Trp Leu
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Ser Leu Arg Leu Trp Ser Val Ala Gly Ile Ser Ile Ala Leu Leu Ser
 20 25 30

 Ala Cys Phe Ile Val Ser Cys Val Val Thr Tyr His Phe Thr Tyr Gly
 35 40 45

 Glu Thr Gly Lys Arg Leu Ser Glu Leu His Ser Tyr His Ser Ser Leu
 50 55 60

 Thr Cys Phe Ser Glu Gly Thr Lys Val Pro Ala Trp Gly Cys Cys Pro
 65 70 75 80

 Ala Ser Trp Lys Ser Phe Gly Ser Ser Cys Tyr Phe Ile Ser Ser Glu
 85 90 95

 Glu Lys Val Trp Ser Lys Ser Glu Gln Asn Cys Val Glu Met Gly Ala
 100 105 110

 His Leu Val Val Phe Asn Thr Glu Ala Glu Gln Asn Phe Ile Val Gln
 115 120 125

 Gln Leu Asn Glu Ser Phe Ser Tyr Phe Leu Gly Leu Ser Asp Pro Gln
 130 135 140

 Gly Asn Asn Asn Trp Gln Trp Ile Asp Lys Thr Pro Tyr Glu Lys Asn
 145 150 155 160

 Val Arg Phe Trp His Leu Gly Glu Pro Asn His Ser Ala Glu Gln Cys
 165 170 175

 Ala Ser Ile Val Phe Trp Lys Pro Thr Gly Trp Gly Trp Asn Asp Val
 180 185 190

 Ile Cys Glu Thr Arg Arg Asn Ser Ile Cys Glu Met Asn Lys Ile Tyr
 195 200 205

Leu

<210> 54
 <211> 48
 <212> PRT
 <213> Homo sapiens

<400> 54
 Met Met Gln Glu Gln Gln Pro Gln Ser Thr Glu Lys Arg Gly Trp Leu

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10

15

Ser Leu Arg Leu Trp Ser Val Ala Gly Ile Ser Ile Ala Leu Leu Ser
20 25 30

Ala Cys Phe Ile Val Ser Cys Val Val Thr Tyr His Phe Thr Tyr Gly
35 40 45

<210> 55

<211> 161

<212> PRT

<213> Homo sapiens

<400> 55

Glu Thr Gly Lys Arg Leu Ser Glu Leu His Ser Tyr His Ser Ser Leu
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Thr Cys Phe Ser Glu Gly Thr Lys Val Pro Ala Trp Gly Cys Cys Pro
20 25 30

Ala Ser Trp Lys Ser Phe Gly Ser Ser Cys Tyr Phe Ile Ser Ser Glu
35 40 45

Glu Lys Val Trp Ser Lys Ser Glu Gln Asn Cys Val Glu Met Gly Ala
50 55 60

His Leu Val Val Phe Asn Thr Glu Ala Glu Gln Asn Phe Ile Val Gln
65 70 75 80

Gln Leu Asn Glu Ser Phe Ser Tyr Phe Leu Gly Leu Ser Asp Pro Gln
85 90 95

Gly Asn Asn Asn Trp Gln Trp Ile Asp Lys Thr Pro Tyr Glu Lys Asn
100 105 110

Val Arg Phe Trp His Leu Gly Glu Pro Asn His Ser Ala Glu Gln Cys
115 120 125

Ala Ser Ile Val Phe Trp Lys Pro Thr Gly Trp Gly Trp Asn Asp Val
130 135 140

Ile Cys Glu Thr Arg Arg Asn Ser Ile Cys Glu Met Asn Lys Ile Tyr
145 150 155 160

Leu

<210> 56

<400> 56

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<210> 57

<400> 57

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<210> 58

<400> 58

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<210> 59

<400> 59

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<210> 60

<211> 209

<212> PRT

<213> Mus sp.

<400> 60

Met Val Gln Glu Arg Gln Ser Gln Gly Lys Gly Val Cys Trp Thr Leu
1 5 10 15

Arg Leu Trp Ser Ala Ala Val Ile Ser Met Leu Leu Ser Thr Cys
20 25 30

Phe Ile Ala Ser Cys Val Val Thr Tyr Gln Phe Ile Met Asp Gln Pro
35 40 45

Ser Arg Arg Leu Tyr Glu Leu His Thr Tyr His Ser Ser Leu Thr Cys
50 55 60

Phe Ser Glu Gly Thr Met Val Ser Glu Lys Met Trp Gly Cys Cys Pro
65 70 75 80

Asn His Trp Lys Ser Phe Gly Ser Ser Cys Tyr Leu Ile Ser Thr Lys
85 90 95

Glu Asn Phe Trp Ser Thr Ser Glu Gln Asn Cys Val Gln Met Gly Ala
100 105 110

His Leu Val Val Ile Asn Thr Glu Ala Glu Gln Asn Phe Ile Thr Gln
115 120 125

Gln Leu Asn Glu Ser Leu Ser Tyr Phe Leu Gly Leu Ser Asp Pro Gln
130 135 140

Gly Asn Gly Lys Trp Gln Trp Ile Asp Asp Thr Pro Phe Ser Gln Asn
145 150 155 160

Val Arg Phe Trp His Pro His Glu Pro Asn Leu Pro Glu Glu Arg Cys
165 170 175

Val Ser Ile Val Tyr Trp Asn Pro Ser Lys Trp Gly Trp Asn Asp Val
180 185 190

Phe Cys Asp Ser Lys His Asn Ser Ile Cys Glu Met Lys Lys Ile Tyr
195 200 205

Leu

<210> 61

<211> 821

<212> DNA

<213> Mus sp.

<220>

<221> unsure

<222> (...)

<400> 61

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attttggaga cagatgcaag aaaccctgaa ccttctgaac atacacctca acaaatggtc 180
aggaaaagaca atcccaaggg aaggagatct gctggaccct gagactctgg tcagctgctg 240
tgatttccat gttactcttg agtacacttt tcattgcgag ctgtgtgggt acttaccaat 300
ttatttatgaa ccagcccagt agaagactat atgaacttca cacataccat tccagtctca 360
cctgcttcag tgaagggact atggtgtcag aaaaaatgtg gggatgctgc ccaaataact 420
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gtgagcagaa ctgtgttcag atgggggctc atctgggtgt gatcaatact gaagcggagc 540
agaatttcat caccagcag ctgaatgagt cacittctta cttcctgggt cttcggatc 600
ccaaggtaat ggcaaatggc aatggatcga tgatactcct ttcaagtcaaa atgtcagggt 660
ctggcacccc catgaaccca atcttccaga agagcgggtgt gtttcaatag tttactggaa 720
tccttcgaaa tggggctggg aatgatgtt tctgtgatag taaacacaat tcaatatgtg 780

aaatgaanaa gattacctat gaatgcctgt tattcttaat a

821

<210> 62

<211> 534

<212> DNA

<213> Mus sp.

<400> 62

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taccaatttta ttatggacca gcccagtata agactatatg aacctcacac ataccattcc 180
agtctcacct gcttcagtga agggactatg gtgtcagaaa aatgtgggg atgctgccca 240
aatcaactgga agtcatttg ctccagctgc tacctcattt ctaccaagga gaacttctgg 300
agcaccagtg agcagaactg tgttcagatg gggctcatc tggtggtgat caatactgaa 360
gcggagcaga atttcatcac ccagcagctg aatgagtcac tttcttactt cctgggtctt 420
tcggatccca aggtaatggc aatggcaat ggatcgatga tactccttc agtcaaaatg 480
tcaggttctg gcaccccat gaacccaatc ttccagaaga gcggtgtgtt tcaa 534

<210> 63

<211> 178

<212> PRT

<213> Mus sp.

<400> 63

Met Val Gln Glu Arg Gln Ser Gln Gly Lys Gly Val Cys Trp Thr Leu
1 5 10 15

Arg Leu Trp Ser Ala Ala Val Ile Ser Met Leu Leu Leu Ser Thr Cys
20 25 30

Phe Ile Ala Ser Cys Val Val Thr Tyr Gln Phe Ile Met Asp Gln Pro
35 40 45

Ser Arg Arg Leu Tyr Glu Leu His Thr Tyr His Ser Ser Leu Thr Cys
50 55 60

Phe Ser Glu Gly Thr Met Val Ser Glu Lys Met Trp Gly Cys Cys Pro
65 70 75 80

Asn His Trp Lys Ser Phe Gly Ser Ser Cys Tyr Leu Ile Ser Thr Lys
85 90 95

Glu Asn Phe Trp Ser Thr Ser Glu Gln Asn Cys Val Gln Met Gly Ala
100 105 110

His Leu Val Val Ile Asn Thr Glu Ala Glu Gln Asn Phe Ile Thr Gln

115

120

125

Gln Leu Asn Glu Ser Leu Ser Tyr Phe Leu Gly Leu Ser Asp Pro Lys
130 135 140

Val Met Ala Asn Gly Asn Gly Ser Met Ile Leu Leu Ser Val Lys Met
145 150 155 160

Ser Gly Ser Gly Thr Pro Met Asn Pro Ile Phe Gln Lys Ser Gly Val
165 170 175

Phe Gln

<210> 64

<211> 48

<212> PRT

<213> Mus sp.

<400> 64

Met Val Gln Glu Arg Gln Ser Gln Gly Lys Gly Val Cys Trp Thr Leu
1 5 10 15

Arg Leu Trp Ser Ala Ala Val Ile Ser Met Leu Leu Leu Ser Thr Cys
20 25 30

Phe Ile Ala Ser Cys Val Val Thr Tyr Gln Phe Ile Met Asp Gln Pro
35 40 45

<210> 65

<211> 130

<212> PRT

<213> Mus sp.

<400> 65

Ser Arg Arg Leu Tyr Glu Leu His Thr Tyr His Ser Ser Leu Thr Cys
1 5 10 15

Phe Ser Glu Gly Thr Met Val Ser Glu Lys Met Trp Gly Cys Cys Pro
20 25 30

Asn His Trp Lys Ser Phe Gly Ser Ser Cys Tyr Leu Ile Ser Thr Lys
35 40 45

Glu Asn Phe Trp Ser Thr Ser Glu Gln Asn Cys Val Gln Met Gly Ala
50 55 60

His Leu Val Val Ile Asn Thr Glu Ala Glu Gln Asn Phe Ile Thr Gln
65 70 75 80

Gln Leu Asn Glu Ser Leu Ser Tyr Phe Leu Gly Leu Ser Asp Pro Lys
85 90 95

Val Met Ala Asn Gly Asn Gly Ser Met Ile Leu Leu Ser Val Lys Met
100 105 110

Ser Gly Ser Gly Thr Pro Met Asn Pro Ile Phe Gln Lys Ser Gly Val
115 120 125

Phe Gln
130

<210> 66
<400> 66
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<210> 67
<400> 67
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<210> 68
<400> 68
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<210> 69
<400> 69
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<210> 70
<400> 70
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<210> 71
<211> 1252
<212> DNA

<213> Mus sp.

<400> 71

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gtcgttattt ggagacagat gcaagaaacc cctgacacctc tgaacataca cctcaacaat 180
ggtgtcaggaa agacaatccc aaggaaaggg agtctgctgg accctgagac tctggtcagc 240
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tctcacctgc ttcagtgaag ggactatggt gtcagaaaaa atgtgggat gctgccaaa 420
tcactggaa tcatttggct ccagctgcta cctcatttctt accaaggaga acttctggag 480
caccagttag cagaactgtg ttcagatgg ggctcatctg gtggtgatca atactgaagc 540
ggagcagaat ttcatcaccc agcagctgaa tgagtcattt tcttacttcc tgggtcttc 600
ggatccacaa ggtaatggca aatggcaatg gatcgatgt actccattca gtcaaaatgt 660
caggttctgg cacccccatg aacccaaatct tccagaagag cggtgtgtt caatagttt 720
ctgaaatct tcgaaatgg gctggaaatgatg tgtttctgt gatagtaaac acaattcaat 780
atgtgaaatg aagaagattt acctatgatg gcctgttattt cattaatata tttaaagtcc 840
agacctacca agaagccata acttcttggc ctgtacatct gacagaggcc gttctttcc 900
tagccactat tctttactca aacagaatgatg gcccttctc cttctgtatgg ttagagttt 960
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agggtccagg tggtaagcaa aggtgttaaa cccatgaaga gcaagccagg gagcatcatc 1140
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<210> 72

<211> 627

<212> DNA

<213> Mus sp.

<400> 72

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gctgctgtga tttccatgtt actctttagt accttgcatttca ttgcagctg tgggtgact 120
taccaatttta ttatggacca gcccagtatg agactatatg aacttcacac ataccattcc 180
agtctcacct gcttcagtga agggactatg gtgtcagaaa aaatgtgggg atgtgcctt 240
aatcactgga agtcatttgg ctccagctgc tacctcattt ctaccaagga gaacttctgg 300
agcaccagtg agcagaactg tggtcagatg gggctcatc tgggtgtat caatactgaa 360
gcggagcaga atttcatcac ccagcagctg aatgagtcac ttcttactt cctgggtctt 420
tcggatccac aaggtaatgg caaatggcaa tggatcgatg atactccctt cagtc当地 480
gtcaggttctt ggcacccca tgaacccaaat cttccagaag agcgggtgtt ttcaatagtt 540
tactggaatc cttcgaaatg gggctggaaat gatgtttctt gtgatagtaa acacaattca 600
atatgtgaaa tgaagaagat ttaccta 627

<210> 73

<211> 590

<212> PRT

<213> Mus sp.

<400> 73

Met	Glu	Thr	Val	Ala	Leu	Gly	Leu	Asn	Gly	Leu	Ala	Arg	Gly	Gly	Leu
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Asn	Ser	Glu	Arg	Gly	Leu	Asn	Gly	Leu	Tyr	Leu	Tyr	Ser	Gly	Leu	Tyr
		20				25						30			
Val	Ala	Leu	Cys	Tyr	Ser	Thr	Arg	Pro	Thr	His	Arg	Leu	Glu	Ala	Arg
			35			40				45					
Gly	Leu	Glu	Thr	Arg	Pro	Ser	Glu	Arg	Ala	Leu	Ala	Ala	Leu	Ala	Val
		50			55				60						
Ala	Leu	Ile	Leu	Glu	Ser	Glu	Arg	Met	Glu	Thr	Leu	Glu	Leu	Glu	Leu
		65			70			75			80				
Glu	Ser	Glu	Arg	Thr	His	Arg	Cys	Tyr	Ser	Pro	His	Glu	Ile	Leu	Glu
		85				90					95				
Ala	Leu	Ala	Ser	Glu	Arg	Cys	Tyr	Ser	Val	Ala	Leu	Val	Ala	Leu	Thr
		100				105				110					
His	Arg	Thr	Tyr	Arg	Gly	Leu	Asn	Pro	His	Glu	Ile	Leu	Glu	Met	Glu
		115			120				125						
Thr	Ala	Ser	Pro	Gly	Leu	Asn	Pro	Arg	Ser	Glu	Arg	Ala	Arg	Gly	Ala
		130			135			140							
Arg	Gly	Leu	Glu	Thr	Tyr	Arg	Gly	Leu	Leu	Glu	His	Ile	Ser	Thr	His
		145			150			155			160				
Arg	Thr	Tyr	Arg	His	Ile	Ser	Ser	Glu	Arg	Ser	Glu	Arg	Leu	Glu	Thr
		165				170		175							
His	Arg	Cys	Tyr	Ser	Pro	His	Glu	Ser	Glu	Arg	Gly	Leu	Gly	Leu	Tyr
		180			185			190							
Thr	His	Arg	Met	Glu	Thr	Val	Ala	Leu	Ser	Glu	Arg	Gly	Leu	Leu	Tyr
		195			200			205							
Ser	Met	Glu	Thr	Thr	Arg	Pro	Gly	Leu	Tyr	Cys	Tyr	Ser	Cys	Tyr	Ser
		210			215			220							
Pro	Arg	Ala	Ser	Asn	His	Ile	Ser	Thr	Arg	Pro	Leu	Tyr	Ser	Ser	Glu
		225				230		235			240				

Arg Pro His Glu Gly Leu Tyr Ser Glu Arg Ser Glu Arg Cys Tyr Ser			
245	250	255	
Thr Tyr Arg Leu Glu Ile Leu Glu Ser Glu Arg Thr His Arg Leu Tyr			
260	265	270	
Ser Gly Leu Ala Ser Asn Pro His Glu Thr Arg Pro Ser Glu Arg Thr			
275	280	285	
His Arg Ser Glu Arg Gly Leu Gly Leu Asn Ala Ser Asn Cys Tyr Ser			
290	295	300	
Val Ala Leu Gly Leu Asn Met Glu Thr Gly Leu Tyr Ala Leu Ala His			
305	310	315	320
Ile Ser Leu Glu Val Ala Leu Val Ala Leu Ile Leu Glu Ala Ser Asn			
325	330	335	
Thr His Arg Gly Leu Ala Leu Ala Gly Leu Gly Leu Asn Ala Ser Asn			
340	345	350	
Pro His Glu Ile Leu Glu Thr His Arg Gly Leu Asn Gly Leu Asn Leu			
355	360	365	
Glu Ala Ser Asn Gly Leu Ser Glu Arg Leu Glu Ser Glu Arg Thr Tyr			
370	375	380	
Arg Pro His Glu Leu Glu Gly Leu Tyr Leu Glu Ser Glu Arg Ala Ser			
385	390	395	400
Pro Pro Arg Gly Leu Asn Gly Leu Tyr Ala Ser Asn Gly Leu Tyr Leu			
405	410	415	
Tyr Ser Thr Arg Pro Gly Leu Asn Thr Arg Pro Ile Leu Glu Ala Ser			
420	425	430	
Pro Ala Ser Pro Thr His Arg Pro Arg Pro His Glu Ser Glu Arg Gly			
435	440	445	
Leu Asn Ala Ser Asn Val Ala Leu Ala Arg Gly Pro His Glu Thr Arg			
450	455	460	
Pro His Ile Ser Pro Arg His Ile Ser Gly Leu Pro Arg Ala Ser Asn			
465	470	475	480
Leu Glu Pro Arg Gly Leu Gly Leu Ala Arg Gly Cys Tyr Ser Val Ala			
485	490	495	

Leu Ser Glu Arg Ile Leu Glu Val Ala Leu Thr Tyr Arg Thr Arg Pro
500 505 510

Ala Ser Asn Pro Arg Ser Glu Arg Leu Tyr Ser Thr Arg Pro Gly Leu
515 520 525

Tyr Thr Arg Pro Ala Ser Asn Ala Ser Pro Val Ala Leu Pro His Glu
530 535 540

Cys Tyr Ser Ala Ser Pro Ser Glu Arg Leu Tyr Ser His Ile Ser Ala
545 550 555 560

Ser Asn Ser Glu Arg Ile Leu Glu Cys Tyr Ser Gly Leu Met Glu Thr
565 570 575

Leu Tyr Ser Leu Tyr Ser Ile Leu Glu Thr Tyr Arg Leu Glu
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<210> 74

<400> 74

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<210> 75

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<210> 76

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<210> 79

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<210> 80
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<210> 81
<211> 1202
<212> DNA
<213> Homo sapiens

<400> 81
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acaaggagct ggcttggc taggctgctc cttgcctatg attggggaaag gttaaacccc 180
tacagggctt atgtatgtgg aaactgttgg aacactgatt aaatgggatg gacttcactt 240
aacactctt gattccaat attatgttgg agtaaaagaa ctgctatcca caaacaccat 300
taatccttta gggaggcaga aaaggccaga atgcaaagcc atctttcat tacactaggg 360
tctgtcttt tacttctctg ggccttatac tggggaggc atgtttcccc cacttggAAC 420
agtgagcctg gccaggacag taacctgtgg gcttgtatg acattatttc taataggaa 480
tgggaaagga tgtagcttc tcaggtttta aagtgtcctg gaggagaaga gaaaggacga 540
catgagaagg agacaatgaa gaagatgggt gagggggaga tagtgtaaga ccotgagaat 600
ggcatagggt aaaactggga cagagatact gtgggagaac gatagctgca gagggacaga 660
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ccaaccagca ctggggagg ccgaggtggg cgatcatga ggtcaggagt ttgagactag 960
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ggcatgcgcc tgtaattcca gctactcagg aggctgaggc aggagaatcg ctggaaaccc 1080
ggaggcagag attacagtga gccgagatca tgccttgca ctctagcctg ggtgacagag 1140
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gc 1202

<210> 82
<211> 255
<212> DNA
<213> Homo sapiens

<400> 82
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gcttgtatg acattatttc taataggaa tggaaagga tgtagcttc tcaggtttta 180
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gagggggaga tagtg . 255

<210> 83
<211> 85
<212> PRT
<213> Homo sapiens

<400> 83

Met Gln Ser His Leu Phe Ile Thr Leu Gly Ser Val Phe Leu Leu Leu
1 5 10 15

Trp Ala Phe Ile Trp Gly Gly His Val Ser Pro Thr Trp Asn Ser Glu
20 25 30

Pro Gly Gln Asp Ser Asn Leu Trp Ala Cys Asp Asp Ile Ile Ser Asn
35 40 45

Arg Glu Trp Glu Arg Met Leu Ala Ser Gln Val Leu Lys Cys Pro Gly
50 55 60

Gly Glu Glu Lys Gly Arg His Glu Lys Glu Thr Met Lys Lys Met Gly
65 70 75 80

Glu Gly Glu Ile Val
85

<210> 84
<211> 23
<212> PRT
<213> Homo sapiens

<400> 84

Met Gln Ser His Leu Phe Ile Thr Leu Gly Ser Val Phe Leu Leu Leu
1 5 10 15

Trp Ala Phe Ile Trp Gly Gly
20

<210> 85
<211> 62
<212> PRT
<213> Homo sapiens

<400> 85

His Val Ser Pro Thr Trp Asn Ser Glu Pro Gly Gln Asp Ser Asn Leu
1 5 10 15

Trp Ala Cys Asp Asp Ile Ile Ser Asn Arg Glu Trp Glu Arg Met Leu

20

25

30

Ala Ser Gln Val Leu Lys Cys Pro Gly Gly Glu Glu Lys Gly Arg His
35 40 45

Glu Lys Glu Thr Met Lys Lys Met Gly Glu Gly Glu Ile Val
50 55 60